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EXAMINER

BARAN, MARY C

ART UNIT PAPER NUMBER

2857

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/802,512

Applicant(s)

HSIUNG ET AL.

Examiner

Mary Kate B Baran

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,8.                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because Figure 3A has unlabeled boxes. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The abstract of the disclosure is objected to because on page 53 line 14 "plurality of parameters" should be – plurality of parameters. –. Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities:

- (a) On page 2 lines 11 and 12, and page 35 line 19, Applicant makes reference to other applications however the serial numbers for these applications have not been supplied.
- (b) On page 3 line 13, "monitor in single parameter" should be – monitor single parameter –.
- (c) On page 5 line 14, "predicted descriptor" should be – predicted descriptor. –.
- (d) On page 24 line 31, "displayed, step 415" should be – displayed (step 415) –.

Appropriate correction is required.

***Claim Objections***

4. Applicant is advised that should claim 29 be found allowable, claim 30 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7, 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites a "training step", however it is not clear whether the Applicant is referring to the "training set" or the "determining step".

Claims 23 and 24 specify "the product" and are dependent on claim 21 and 23 respectively. However, claim 21 is directed to a system and not a product.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, 7-11, 13, 14, 16 and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Guerlain (U.S. Patent No. 6,414,594).

Referring to claim 1, Guerlain teaches a system for monitoring an industrial process (see column 3 lines 51-57), the system comprising: a process controller (see column 3 lines 52-58); an input module coupled to the process controller (see column 3 lines 61-67), the input module being adapted to input a plurality of parameters from a process for manufacture of a substance (see column 3 lines 58-61); a computer aided process module coupled to the process controller (see column 3 lines 57-58), the computer aided process module being adapted to compare at least two of the plurality of parameters against a predetermined training set of parameters (see column 6 lines 12-20), and being adapted to determine if the at least two of the plurality of parameters are within a predetermined range of the training set of parameters (see column 6 lines 14-16); and an output module coupled to the process controller, the output module being adapted to output a result based upon the determining step (see column 7 lines 32-35).

Referring to claim 3, Guerlain teaches that the plurality of parameters are selected from an intrinsic element or an extrinsic element of the process (see column 3 lines 61-67).

Referring to claim 4, Guerlain teaches that the input module, the computer aided process module, and the output module are provided in a computer software program (see column 4 lines 15-20 and lines 28-42).

Referring to claim 7, Guerlain teaches that the parameters are preprocessed in at least two of the computer aided processes (see column 7 lines 24-36).

Referring to claim 8, Guerlain teaches that the result is an affirmative response (see column 7 lines 36-38) or a negative response (see column 7 lines 32-35), where the response is displayed on a terminal (see column 7 lines 5-24).

Referring to claim 9, Guerlain teaches that the computer aided process is selected from a library comprising a plurality of processes (see column 7 lines 5-23).

Referring to claim 10, Guerlain teaches that the plurality of processes includes at least a comparing process, a contrasting process (see column 7 lines 25-46), and a functional process (see column 8 lines 37-46).

Referring to claim 11, Guerlain teaches a system for monitoring an industrial process for the manufacture of materials or objects (see column 3 lines 51-61), the system comprising: an input module, the input module being adapted to input a plurality of process parameters from a process for manufacture of a substance or object (see column 3 lines 58-63); a library module coupled to the input module, the library module including a plurality of computer aided processes (see column 7 lines 5-23), each of the computer aided processes being capable of determining an output based upon a predetermined training set of the plurality of process parameters (see column 6 lines 12-20); an output module coupled to the library module, the output module being adapted to output a result based upon the predetermined training set and the plurality of process parameters (see column 7 lines 32-35); where each of the computer aided processes compares at least two of the plurality of process parameters against a portion of the training set of parameters (see column 6 lines 12-20) and determines if the at least two of the plurality of process parameters are within a predetermined range of the portion of the training set of parameters (see column 6 lines 14-16 and column 7 lines 32-35).

Referring to claim 13, Guerlain teaches that the plurality of parameters are selected from an intrinsic element or an extrinsic element of the process (see column 3 lines 61-67).

Referring to claim 4, Guerlain teaches that the input module, the computer aided process module, and the output module are provided in a computer software program (see column 4 lines 15-20 and lines 28-42).

Referring to claim 15, where the computer aided process includes an algorithm selected from PCA, HCA, KNN CV KNN Prd, SIMCA CV, SIMCA Prd, Canon Prd, SCREAM, and Fishcer CV.

Referring to claim 16, Guerlain teaches that the training set of parameters are preprocessed (see column 4 lines 7-11).

Referring to claim 18, Guerlain teaches that the result is an affirmative response (see column 7 lines 36-38) or a negative response (see column 7 lines 32-35), where the response is displayed on a terminal (see column 7 lines 5-24).

Referring to claim 19, Guerlain teaches that the computer aided process is selected from a library comprising a plurality of processes (see column 7 lines 5-23).

Referring to claim 20, Guerlain teaches that the plurality of processes includes at least a comparing process, a contrasting process (see column 7 lines 25-46), and a functional process (see column 8 lines 37-46).



***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerlain (U.S. Patent No. 6,414,594) in view of Spichiger-Keller et al. (U.S. Patent No. 6,409,909) (hereinafter Spichiger-Keller).

Referring to claims 2 and 12, Guerlain teaches all the features of the claimed invention except that the substance is selected from a petroleum product, a chemical product, a food product, a health product, a cleaning product, a biological product, and other fluid or objects.

Spichiger-Keller teaches that the substance is selected from a petroleum product, a chemical product, a food product, a health product, a cleaning product, a biological product, and other fluid or objects (see column 10 lines 39-62).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Guerlain to include the teachings of Spichiger-Keller because selecting the substance would have allowed the skilled artisan to quantify and identify the substance (see Spichiger-Keller, column 4 lines 11-19).

8. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerlain (U.S. Patent No. 6,414,594) in view of Wold et al. (U.S. Patent No. 5,949,678) (hereinafter Wold).

Referring to claims 5 and 15, Guerlain teaches all the features of the claimed invention except that the computer aided process includes an algorithm selected from PCA, HCA, KNN CV KNN Prd, SIMCA CV, SIMCA Prd, Canon Prd, SCREAM, and Fishcer CV.

Wold teaches that the computer aided process includes a PCA algorithm (see column 8 lines 19-24).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Guerlain to include the teachings of Wold because using a PCA algorithm would have allowed the skilled artisan to be presented with an overview of a quantity of data, to determine if the process continues normally or if it deviates from the norm, and allows for real-time monitoring (see Wold, column 4 lines 19-27).

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guerlain (U.S. Patent No. 6,414,594) in view of Gross et al. (U.S. Patent No. 5,774,379) (hereinafter Gross).

Referring to claim 6, Guerlain teaches all the features of the claimed invention except for a normalizing module coupled to the process controller, the normalizing module being adapted to normalize each of the plurality of parameters before input into the computer aided process module.

Gross teaches a normalizing module coupled to the process controller, the normalizing module being adapted to normalize each of the plurality of parameters before input into the computer aided process module (see column 4 lines 44-51 and column 9 lines 7-11).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Guerlain to include the teachings of Gross because normalizing the data would have allowed the skilled artisan to adjust for differences in the calibration factor (see Guerlain, column 9 lines 31-33)

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guerlain (U.S. Patent No. 6,414,594) in view of Gelperin (U.S. Patent No. 5,675,070).

Referring to claim 17, Guerlain teaches all the features of the claimed invention except that the parameters comprise at least olfactory information.

Gelperin teaches that parameters comprise at least olfactory information (see column 3 lines 38-41).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Guerlain to include the teachings of Gelperin because having a parameter which pertains specifically to olfactory information would have allowed the skilled artisan to detect the level of various gases and produce a sensor pattern that represents the various gas concentrations (see Gelperin, column 2 lines 50-53).

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### ***Double Patenting***

11. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 21-25 and 27-30 and 32 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 52-56 and 58-62 of copending Applications No. 09/802377, 10/172433, and 10/14631. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 26 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 57 of copending Application No. 09/802377, 10/172433, and 10/214631. Although the conflicting claims are not identical, they are not patentably distinct from each other, because there is no functional difference between "an output module including an interface between the process manager and an associated system including at least one of a legacy system, an e-enterprise system, and a desktop application", as claimed in the instant application, and "an interface between the process manager and an associated system including at least one of a legacy system, an e-enterprise system, and a desktop application" as claimed in the copending applications. Both recite an interface between a process manager and an associated system.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Simon et al. teach a method and management system for controlling, monitoring and regulating complex industrial processes in particular, such as in a nuclear power plant.

(b) Pyotsia et al. teach a field device management system.

(c) Pyotsia et al. teach a method of tuning a process control loop in an industrial process.

(d) Morita teaches an industrial expert system.

(e) Cassell teaches a distributed measurement and control system for industrial processes.

(f) Dharnipragada teaches industrial process device management software.

(g) Tittle teaches a chemical process control system.

(h) Heath et al. teach a process environment monitoring system.

(i) Galecki et al. teach industrial control systems having input/output circuits with programmable input/output characteristics.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Kate B Baran whose telephone number is (703) 305-4474. The examiner can normally be reached on Monday - Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S Hoff can be reached on (703) 308-1677. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

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